

Test Case 1: Node 1 proposes leadership with proposal number 40.

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PROPOSER Node 1 is proposing leadership for value 40
ACCEPTOR Node 2 received proposal from PROPOSER Node 1 with value: 40
ACCEPTOR Node 9 received proposal from PROPOSER Node 1 with value: 40
ACCEPTOR Node 7 received proposal from PROPOSER Node 1 with value: 40
ACCEPTOR Node 8 received proposal from PROPOSER Node 1 with value: 40
ACCEPTOR Node 5 received proposal from PROPOSER Node 1 with value: 40
ACCEPTOR Node 3 received proposal from PROPOSER Node 1 with value: 40
ACCEPTOR Node 4 received proposal from PROPOSER Node 1 with value: 40
ACCEPTOR Node 4 accepts proposal 40 from PROPOSER Node 1
ACCEPTOR Node 6 received proposal from PROPOSER Node 1 with value: 40
ACCEPTOR Node 6 accepts proposal 40 from PROPOSER Node 1
ACCEPTOR Node 5 accepts proposal 40 from PROPOSER Node 1
ACCEPTOR Node 8 accepts proposal 40 from PROPOSER Node 1
ACCEPTOR Node 7 accepts proposal 40 from PROPOSER Node 1
ACCEPTOR Node 2 accepts proposal 40 from PROPOSER Node 1
ACCEPTOR Node 9 accepts proposal 40 from PROPOSER Node 1
ACCEPTOR Node 3 accepts proposal 40 from PROPOSER Node 1
PROPOSER Node 1 received promise from ACCEPTOR Node 4 with value: 40
PROPOSER Node 1 received promise from ACCEPTOR Node 8 with value: 40
PROPOSER Node 1 received promise from ACCEPTOR Node 7 with value: 40
PROPOSER Node 1 received promise from ACCEPTOR Node 2 with value: 40
PROPOSER Node 1 received promise from ACCEPTOR Node 6 with value: 40
PROPOSER Node 1 received promise from ACCEPTOR Node 9 with value: 40
PROPOSER Node 1 received promise from ACCEPTOR Node 5 with value: 40
Node 1 is declaring itself as the leader for proposal value 40
PROPOSER Node 1 received promise from ACCEPTOR Node 3 with value: 40
Node 2 agrees with leader declaration: Node 1 is the leader.
Node 4 agrees with leader declaration: Node 1 is the leader.
Node 3 agrees with leader declaration: Node 1 is the leader.
Node 5 agrees with leader declaration: Node 1 is the leader.
Node 6 agrees with leader declaration: Node 1 is the leader.
Node 9 agrees with leader declaration: Node 1 is the leader.
Node 7 agrees with leader declaration: Node 1 is the leader.
Node 8 agrees with leader declaration: Node 1 is the leader.
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Test Case 2: Simulate Node 1 proposing 50 and Node 2 proposing 30 concurrently.

```
PROPOSER Node 1 is proposing leadership for value 50
PROPOSER Node 2 is proposing leadership for value 30
ACCEPTOR Node 4 received proposal from PROPOSER Node 1 with value: 50
ACCEPTOR Node 8 received proposal from PROPOSER Node 1 with value: 50
ACCEPTOR Node 9 received proposal from PROPOSER Node 1 with value: 50
ACCEPTOR Node 6 received proposal from PROPOSER Node 1 with value: 50
ACCEPTOR Node 7 received proposal from PROPOSER Node 1 with value: 50
ACCEPTOR Node 5 received proposal from PROPOSER Node 1 with value: 50
ACCEPTOR Node 8 accepts proposal 50 from PROPOSER Node 1
ACCEPTOR Node 3 received proposal from PROPOSER Node 2 with value: 30
ACCEPTOR Node 3 accepts proposal 30 from PROPOSER Node 2
ACCEPTOR Node 9 accepts proposal 50 from PROPOSER Node 1
ACCEPTOR Node 4 accepts proposal 50 from PROPOSER Node 1
ACCEPTOR Node 5 accepts proposal 50 from PROPOSER Node 1
ACCEPTOR Node 9 received proposal from PROPOSER Node 2 with value: 30
ACCEPTOR Node 3 received proposal from PROPOSER Node 1 with value: 50
ACCEPTOR Node 8 received proposal from PROPOSER Node 2 with value: 30
ACCEPTOR Node 7 accepts proposal 50 from PROPOSER Node 1
ACCEPTOR Node 6 accepts proposal 50 from PROPOSER Node 1
ACCEPTOR Node 5 received proposal from PROPOSER Node 2 with value: 30
ACCEPTOR Node 3 accepts proposal 50 from PROPOSER Node 1
ACCEPTOR Node 4 received proposal from PROPOSER Node 2 with value: 30
ACCEPTOR Node 7 received proposal from PROPOSER Node 2 with value: 30
ACCEPTOR Node 6 received proposal from PROPOSER Node 2 with value: 30
PROPOSER Node 2 received promise from ACCEPTOR Node 3 with value: 30
PROPOSER Node 1 received promise from ACCEPTOR Node 8 with value: 50
PROPOSER Node 1 received promise from ACCEPTOR Node 9 with value: 50
PROPOSER Node 1 received promise from ACCEPTOR Node 5 with value: 50
PROPOSER Node 1 received promise from ACCEPTOR Node 4 with value: 50
PROPOSER Node 1 received promise from ACCEPTOR Node 6 with value: 50
PROPOSER Node 1 received promise from ACCEPTOR Node 7 with value: 50
PROPOSER Node 1 received promise from ACCEPTOR Node 3 with value: 50
Node 1 is declaring itself as the leader for proposal value 50
Node 4 agrees with leader declaration: Node 1 is the leader.
Node 3 agrees with leader declaration: Node 1 is the leader.
Node 5 agrees with leader declaration: Node 1 is the leader.
Node 6 agrees with leader declaration: Node 1 is the leader.
Node 7 agrees with leader declaration: Node 1 is the leader.
Node 8 agrees with leader declaration: Node 1 is the leader.
Node 9 agrees with leader declaration: Node 1 is the leader.
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Test Case 3: Node 1 proposes leadership with proposal number 40, Node 3 has a small delay.

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Test Case 3: Node 1 proposes leadership with proposal number 40, Node 3 has a small delay.

PROPOSER Node 1 is proposing leadership for value 40
ACCEPTOR Node 2 received proposal from PROPOSER Node 1 with value: 40
ACCEPTOR Node 2 accepts proposal 40 from PROPOSER Node 1
PROPOSER Node 1 received promise from ACCEPTOR Node 2 with value: 40
ACCEPTOR Node 3 received proposal from PROPOSER Node 1 with value: 40
ACCEPTOR Node 3 accepts proposal 40 from PROPOSER Node 1
ACCEPTOR Node 4 received proposal from PROPOSER Node 1 with value: 40
ACCEPTOR Node 4 accepts proposal 40 from PROPOSER Node 1
ACCEPTOR Node 5 received proposal from PROPOSER Node 1 with value: 40
ACCEPTOR Node 5 accepts proposal 40 from PROPOSER Node 1
PROPOSER Node 1 received promise from ACCEPTOR Node 3 with value: 40
ACCEPTOR Node 6 received proposal from PROPOSER Node 1 with value: 40
ACCEPTOR Node 6 accepts proposal 40 from PROPOSER Node 1
ACCEPTOR Node 7 received proposal from PROPOSER Node 1 with value: 40
ACCEPTOR Node 7 accepts proposal 40 from PROPOSER Node 1
ACCEPTOR Node 8 received proposal from PROPOSER Node 1 with value: 40
ACCEPTOR Node 8 accepts proposal 40 from PROPOSER Node 1
PROPOSER Node 1 received promise from ACCEPTOR Node 4 with value: 40
PROPOSER Node 1 received promise from ACCEPTOR Node 5 with value: 40
ACCEPTOR Node 9 received proposal from PROPOSER Node 1 with value: 40
ACCEPTOR Node 9 accepts proposal 40 from PROPOSER Node 1
PROPOSER Node 1 received promise from ACCEPTOR Node 6 with value: 40
PROPOSER Node 1 received promise from ACCEPTOR Node 8 with value: 40
PROPOSER Node 1 received promise from ACCEPTOR Node 7 with value: 40
Node 1 is declaring itself as the leader for proposal value 40
Node 2 agrees with leader declaration: Node 1 is the leader.
Node 3 agrees with leader declaration: Node 1 is the leader.
Node 4 agrees with leader declaration: Node 1 is the leader.
Node 5 agrees with leader declaration: Node 1 is the leader.
Node 6 agrees with leader declaration: Node 1 is the leader.
Node 7 agrees with leader declaration: Node 1 is the leader.
PROPOSER Node 1 received promise from ACCEPTOR Node 9 with value: 40
Node 8 agrees with leader declaration: Node 1 is the leader.
Node 9 agrees with leader declaration: Node 1 is the leader.
```

Test Case 4: Node 1 proposes leadership with proposal number 60, Node 9 has a large delay.

```
PROPOSER Node 1 is proposing leadership for value 60
ACCEPTOR Node 3 received proposal from PROPOSER Node 1 with value: 60
ACCEPTOR Node 8 received proposal from PROPOSER Node 1 with value: 60
ACCEPTOR Node 7 received proposal from PROPOSER Node 1 with value: 60
ACCEPTOR Node 6 received proposal from PROPOSER Node 1 with value: 60
ACCEPTOR Node 6 accepts proposal 60 from PROPOSER Node 1
ACCEPTOR Node 4 received proposal from PROPOSER Node 1 with value: 60
ACCEPTOR Node 5 received proposal from PROPOSER Node 1 with value: 60
ACCEPTOR Node 5 accepts proposal 60 from PROPOSER Node 1
ACCEPTOR Node 2 received proposal from PROPOSER Node 1 with value: 60
ACCEPTOR Node 2 accepts proposal 60 from PROPOSER Node 1
ACCEPTOR Node 4 accepts proposal 60 from PROPOSER Node 1
ACCEPTOR Node 7 accepts proposal 60 from PROPOSER Node 1
ACCEPTOR Node 8 accepts proposal 60 from PROPOSER Node 1
ACCEPTOR Node 3 accepts proposal 60 from PROPOSER Node 1
PROPOSER Node 1 received promise from ACCEPTOR Node 5 with value: 60
PROPOSER Node 1 received promise from ACCEPTOR Node 6 with value: 60
PROPOSER Node 1 received promise from ACCEPTOR Node 8 with value: 60
PROPOSER Node 1 received promise from ACCEPTOR Node 2 with value: 60
PROPOSER Node 1 received promise from ACCEPTOR Node 7 with value: 60
PROPOSER Node 1 received promise from ACCEPTOR Node 4 with value: 60
PROPOSER Node 1 received promise from ACCEPTOR Node 3 with value: 60
Node 1 is declaring itself as the leader for proposal value 60
ACCEPTOR Node 9 received proposal from PROPOSER Node 1 with value: 60
ACCEPTOR Node 9 accepts proposal 60 from PROPOSER Node 1
Node 2 agrees with leader declaration: Node 1 is the leader.
Node 3 agrees with leader declaration: Node 1 is the leader.
Node 4 agrees with leader declaration: Node 1 is the leader.
Node 5 agrees with leader declaration: Node 1 is the leader.
Node 6 agrees with leader declaration: Node 1 is the leader.
Node 7 agrees with leader declaration: Node 1 is the leader.
Node 8 agrees with leader declaration: Node 1 is the leader.
PROPOSER Node 1 received promise from ACCEPTOR Node 9 with value: 60
Node 9 agrees with leader declaration: Node 1 is the leader.
```

Test Case 5: Multiple nodes with varying delays.

```
PROPOSER Node 1 is proposing leadership for value 70
ACCEPTOR Node 2 received proposal from PROPOSER Node 1 with value: 70
ACCEPTOR Node 2 accepts proposal 70 from PROPOSER Node 1
PROPOSER Node 1 received promise from ACCEPTOR Node 2 with value: 70
ACCEPTOR Node 3 received proposal from PROPOSER Node 1 with value: 70
ACCEPTOR Node 3 accepts proposal 70 from PROPOSER Node 1
ACCEPTOR Node 4 received proposal from PROPOSER Node 1 with value: 70
ACCEPTOR Node 4 accepts proposal 70 from PROPOSER Node 1
PROPOSER Node 1 received promise from ACCEPTOR Node 4 with value: 70
PROPOSER Node 1 received promise from ACCEPTOR Node 3 with value: 70
ACCEPTOR Node 5 received proposal from PROPOSER Node 1 with value: 70
ACCEPTOR Node 5 accepts proposal 70 from PROPOSER Node 1
ACCEPTOR Node 6 received proposal from PROPOSER Node 1 with value: 70
ACCEPTOR Node 6 accepts proposal 70 from PROPOSER Node 1
PROPOSER Node 1 received promise from ACCEPTOR Node 5 with value: 70
PROPOSER Node 1 received promise from ACCEPTOR Node 6 with value: 70
ACCEPTOR Node 7 received proposal from PROPOSER Node 1 with value: 70
ACCEPTOR Node 7 accepts proposal 70 from PROPOSER Node 1
ACCEPTOR Node 8 received proposal from PROPOSER Node 1 with value: 70
ACCEPTOR Node 8 accepts proposal 70 from PROPOSER Node 1
PROPOSER Node 1 received promise from ACCEPTOR Node 7 with value: 70
PROPOSER Node 1 received promise from ACCEPTOR Node 8 with value: 70
Node 1 is declaring itself as the leader for proposal value 70
ACCEPTOR Node 9 received proposal from PROPOSER Node 1 with value: 70
ACCEPTOR Node 9 accepts proposal 70 from PROPOSER Node 1
Node 2 agrees with leader declaration: Node 1 is the leader.
Node 3 agrees with leader declaration: Node 1 is the leader.
Node 4 agrees with leader declaration: Node 1 is the leader.
Node 5 agrees with leader declaration: Node 1 is the leader.
Node 6 agrees with leader declaration: Node 1 is the leader.
Node 7 agrees with leader declaration: Node 1 is the leader.
Node 8 agrees with leader declaration: Node 1 is the leader.
PROPOSER Node 1 received promise from ACCEPTOR Node 9 with value: 70
Node 9 agrees with leader declaration: Node 1 is the leader.
```

Test Case 6: Node 2 as proposer with latency response.

```
PROPOSER Node 2 is proposing leadership for value 80
ACCEPTOR Node 1 received proposal from PROPOSER Node 2 with value: 80
ACCEPTOR Node 8 received proposal from PROPOSER Node 2 with value: 80
ACCEPTOR Node 6 received proposal from PROPOSER Node 2 with value: 80
ACCEPTOR Node 9 received proposal from PROPOSER Node 2 with value: 80
ACCEPTOR Node 7 received proposal from PROPOSER Node 2 with value: 80
ACCEPTOR Node 8 accepts proposal 80 from PROPOSER Node 2
ACCEPTOR Node 5 received proposal from PROPOSER Node 2 with value: 80
ACCEPTOR Node 5 accepts proposal 80 from PROPOSER Node 2
ACCEPTOR Node 4 received proposal from PROPOSER Node 2 with value: 80
ACCEPTOR Node 4 accepts proposal 80 from PROPOSER Node 2
ACCEPTOR Node 3 received proposal from PROPOSER Node 2 with value: 80
ACCEPTOR Node 9 accepts proposal 80 from PROPOSER Node 2
ACCEPTOR Node 6 accepts proposal 80 from PROPOSER Node 2
ACCEPTOR Node 7 accepts proposal 80 from PROPOSER Node 2
ACCEPTOR Node 1 accepts proposal 80 from PROPOSER Node 2
ACCEPTOR Node 3 accepts proposal 80 from PROPOSER Node 2
PROPOSER Node 2 received promise from ACCEPTOR Node 6 with value: 80
PROPOSER Node 2 received promise from ACCEPTOR Node 9 with value: 80
PROPOSER Node 2 received promise from ACCEPTOR Node 5 with value: 80
PROPOSER Node 2 received promise from ACCEPTOR Node 4 with value: 80
PROPOSER Node 2 received promise from ACCEPTOR Node 7 with value: 80
PROPOSER Node 2 received promise from ACCEPTOR Node 1 with value: 80
PROPOSER Node 2 received promise from ACCEPTOR Node 8 with value: 80
Node 2 is declaring itself as the leader for proposal value 80
Node 1 agrees with leader declaration: Node 2 is the leader.
Node 3 agrees with leader declaration: Node 2 is the leader.
Node 4 agrees with leader declaration: Node 2 is the leader.
Node 5 agrees with leader declaration: Node 2 is the leader.
Node 6 agrees with leader declaration: Node 2 is the leader.
Node 7 agrees with leader declaration: Node 2 is the leader.
Node 8 agrees with leader declaration: Node 2 is the leader.
PROPOSER Node 2 received promise from ACCEPTOR Node 3 with value: 80
Node 9 agrees with leader declaration: Node 2 is the leader.
```

Test Case 7: Node 2 as proposer with latency propose

```
PROPOSER Node 2 is proposing leadership for value 80
ACCEPTOR Node 4 received proposal from PROPOSER Node 2 with value: 80
ACCEPTOR Node 7 received proposal from PROPOSER Node 2 with value: 80
ACCEPTOR Node 7 accepts proposal 80 from PROPOSER Node 2
ACCEPTOR Node 5 received proposal from PROPOSER Node 2 with value: 80
ACCEPTOR Node 5 accepts proposal 80 from PROPOSER Node 2
ACCEPTOR Node 6 received proposal from PROPOSER Node 2 with value: 80
ACCEPTOR Node 6 accepts proposal 80 from PROPOSER Node 2
ACCEPTOR Node 3 received proposal from PROPOSER Node 2 with value: 80
ACCEPTOR Node 3 accepts proposal 80 from PROPOSER Node 2
ACCEPTOR Node 1 received proposal from PROPOSER Node 2 with value: 80
ACCEPTOR Node 1 accepts proposal 80 from PROPOSER Node 2
ACCEPTOR Node 4 accepts proposal 80 from PROPOSER Node 2
PROPOSER Node 2 received promise from ACCEPTOR Node 5 with value: 80
PROPOSER Node 2 received promise from ACCEPTOR Node 7 with value: 80
PROPOSER Node 2 received promise from ACCEPTOR Node 6 with value: 80
PROPOSER Node 2 received promise from ACCEPTOR Node 3 with value: 80
PROPOSER Node 2 received promise from ACCEPTOR Node 4 with value: 80
PROPOSER Node 2 received promise from ACCEPTOR Node 1 with value: 80
ACCEPTOR Node 8 received proposal from PROPOSER Node 2 with value: 80
ACCEPTOR Node 8 accepts proposal 80 from PROPOSER Node 2
PROPOSER Node 2 received promise from ACCEPTOR Node 8 with value: 80
Node 2 is declaring itself as the leader for proposal value 80
ACCEPTOR Node 9 received proposal from PROPOSER Node 2 with value: 80
ACCEPTOR Node 9 accepts proposal 80 from PROPOSER Node 2
Node 1 agrees with leader declaration: Node 2 is the leader.
Node 3 agrees with leader declaration: Node 2 is the leader.
Node 4 agrees with leader declaration: Node 2 is the leader.
Node 5 agrees with leader declaration: Node 2 is the leader.
Node 6 agrees with leader declaration: Node 2 is the leader.
Node 7 agrees with leader declaration: Node 2 is the leader.
Node 8 agrees with leader declaration: Node 2 is the leader.
PROPOSER Node 2 received promise from ACCEPTOR Node 9 with value: 80
Node 9 agrees with leader declaration: Node 2 is the leader.
```

Test Case 8: Simulate Node 1 proposing 30 and Node 2 proposing 50 concurrently with network latency.

```
PROPOSER Node 1 is proposing leadership for value 30
ACCEPTOR Node 3 received proposal from PROPOSER Node 1 with value: 30
ACCEPTOR Node 5 received proposal from PROPOSER Node 1 with value: 30
ACCEPTOR Node 8 received proposal from PROPOSER Node 1 with value: 30
ACCEPTOR Node 4 received proposal from PROPOSER Node 1 with value: 30
ACCEPTOR Node 9 received proposal from PROPOSER Node 1 with value: 30
ACCEPTOR Node 7 received proposal from PROPOSER Node 1 with value: 30
ACCEPTOR Node 7 accepts proposal 30 from PROPOSER Node 1
ACCEPTOR Node 6 received proposal from PROPOSER Node 1 with value: 30
ACCEPTOR Node 6 accepts proposal 30 from PROPOSER Node 1
ACCEPTOR Node 9 accepts proposal 30 from PROPOSER Node 1
ACCEPTOR Node 8 accepts proposal 30 from PROPOSER Node 1
ACCEPTOR Node 5 accepts proposal 30 from PROPOSER Node 1
ACCEPTOR Node 4 accepts proposal 30 from PROPOSER Node 1
ACCEPTOR Node 3 accepts proposal 30 from PROPOSER Node 1
PROPOSER Node 2 is proposing leadership for value 50
ACCEPTOR Node 5 received proposal from PROPOSER Node 2 with value: 50
ACCEPTOR Node 6 received proposal from PROPOSER Node 2 with value: 50
ACCEPTOR Node 6 accepts proposal 50 from PROPOSER Node 2
ACCEPTOR Node 4 received proposal from PROPOSER Node 2 with value: 50
ACCEPTOR Node 7 received proposal from PROPOSER Node 2 with value: 50
ACCEPTOR Node 7 accepts proposal 50 from PROPOSER Node 2
ACCEPTOR Node 4 accepts proposal 50 from PROPOSER Node 2
ACCEPTOR Node 9 received proposal from PROPOSER Node 2 with value: 50
ACCEPTOR Node 8 received proposal from PROPOSER Node 2 with value: 50
ACCEPTOR Node 3 received proposal from PROPOSER Node 2 with value: 50
ACCEPTOR Node 3 accepts proposal 50 from PROPOSER Node 2
ACCEPTOR Node 5 accepts proposal 50 from PROPOSER Node 2
ACCEPTOR Node 8 accepts proposal 50 from PROPOSER Node 2
ACCEPTOR Node 9 accepts proposal 50 from PROPOSER Node 2
PROPOSER Node 1 received promise from ACCEPTOR Node 5 with value: 30
PROPOSER Node 1 received promise from ACCEPTOR Node 4 with value: 30
PROPOSER Node 1 received promise from ACCEPTOR Node 3 with value: 30
PROPOSER Node 1 received promise from ACCEPTOR Node 7 with value: 30
PROPOSER Node 1 received promise from ACCEPTOR Node 9 with value: 30
PROPOSER Node 1 received promise from ACCEPTOR Node 6 with value: 30
Node 1 is declaring itself as the leader for proposal value 30
PROPOSER Node 2 received promise from ACCEPTOR Node 8 with value: 50
PROPOSER Node 2 received promise from ACCEPTOR Node 7 with value: 50
PROPOSER Node 2 received promise from ACCEPTOR Node 3 with value: 50
PROPOSER Node 2 received promise from ACCEPTOR Node 4 with value: 50
```

```
Node 2 is declaring itself as the leader for proposal value 50
PROPOSER Node 2 received promise from ACCEPTOR Node 6 with value: 50
PROPOSER Node 2 received promise from ACCEPTOR Node 5 with value: 50
Node 3 disagrees with leader declaration: Node 1 is not the leader.
Node 4 disagrees with leader declaration: Node 1 is not the leader.
Node 5 disagrees with leader declaration: Node 1 is not the leader.
Node 6 disagrees with leader declaration: Node 1 is not the leader.
Node 7 disagrees with leader declaration: Node 1 is not the leader.
PROPOSER Node 1 received promise from ACCEPTOR Node 8 with value: 30
Node 8 disagrees with leader declaration: Node 1 is not the leader.
Node 9 disagrees with leader declaration: Node 1 is not the leader.
Node 3 agrees with leader declaration: Node 2 is the leader.
Node 4 agrees with leader declaration: Node 2 is the leader.
Node 5 agrees with leader declaration: Node 2 is the leader.
Node 6 agrees with leader declaration: Node 2 is the leader.
Node 7 agrees with leader declaration: Node 2 is the leader.
Node 8 agrees with leader declaration: Node 2 is the leader.
PROPOSER Node 2 received promise from ACCEPTOR Node 9 with value: 50
Node 9 agrees with leader declaration: Node 2 is the leader.
Node 3 disagrees with leader declaration: Node 1 is not the leader.
Node 4 disagrees with leader declaration: Node 1 is not the leader.
Node 5 disagrees with leader declaration: Node 1 is not the leader.
Node 6 disagrees with leader declaration: Node 1 is not the leader.
Node 7 disagrees with leader declaration: Node 1 is not the leader.
Node 8 disagrees with leader declaration: Node 1 is not the leader.
Node 9 disagrees with leader declaration: Node 1 is not the leader.
Node 3 disagrees with leader declaration: Node 1 is not the leader.
Node 4 disagrees with leader declaration: Node 1 is not the leader.
Node 5 disagrees with leader declaration: Node 1 is not the leader.
Node 6 disagrees with leader declaration: Node 1 is not the leader.
Node 7 disagrees with leader declaration: Node 1 is not the leader.
Node 8 disagrees with leader declaration: Node 1 is not the leader.
Node 9 disagrees with leader declaration: Node 1 is not the leader.
Node 3 disagrees with leader declaration: Node 1 is not the leader.
Node 4 disagrees with leader declaration: Node 1 is not the leader.
Node 5 disagrees with leader declaration: Node 1 is not the leader.
Node 6 disagrees with leader declaration: Node 1 is not the leader.
Node 7 disagrees with leader declaration: Node 1 is not the leader.
Node 8 disagrees with leader declaration: Node 1 is not the leader.
Node 9 disagrees with leader declaration: Node 1 is not the leader.
```

Test Case 9: Node 3 as proposer goes offline.

```
PROPOSER Node 3 is proposing leadership for value 80
ACCEPTOR Node 1 received proposal from PROPOSER Node 3 with value: 80
ACCEPTOR Node 9 received proposal from PROPOSER Node 3 with value: 80
ACCEPTOR Node 8 received proposal from PROPOSER Node 3 with value: 80
ACCEPTOR Node 7 received proposal from PROPOSER Node 3 with value: 80
ACCEPTOR Node 6 received proposal from PROPOSER Node 3 with value: 80
ACCEPTOR Node 4 received proposal from PROPOSER Node 3 with value: 80
ACCEPTOR Node 2 received proposal from PROPOSER Node 3 with value: 80
ACCEPTOR Node 5 received proposal from PROPOSER Node 3 with value: 80
ACCEPTOR Node 1 accepts proposal 80 from PROPOSER Node 3
ACCEPTOR Node 9 accepts proposal 80 from PROPOSER Node 3
ACCEPTOR Node 5 accepts proposal 80 from PROPOSER Node 3
ACCEPTOR Node 6 accepts proposal 80 from PROPOSER Node 3
ACCEPTOR Node 7 accepts proposal 80 from PROPOSER Node 3
ACCEPTOR Node 2 accepts proposal 80 from PROPOSER Node 3
ACCEPTOR Node 8 accepts proposal 80 from PROPOSER Node 3
ACCEPTOR Node 4 accepts proposal 80 from PROPOSER Node 3
Proposer went offline. No leader is chosen
```

Test Case 10: Node 3 as proposer goes offline then go online.

```
PROPOSER Node 3 is proposing leadership for value 80
ACCEPTOR Node 1 received proposal from PROPOSER Node 3 with value: 80
ACCEPTOR Node 1 accepts proposal 80 from PROPOSER Node 3
PROPOSER Node 3 received promise from ACCEPTOR Node 1 with value: 80
ACCEPTOR Node 2 received proposal from PROPOSER Node 3 with value: 80
ACCEPTOR Node 2 accepts proposal 80 from PROPOSER Node 3
ACCEPTOR Node 4 received proposal from PROPOSER Node 3 with value: 80
ACCEPTOR Node 4 accepts proposal 80 from PROPOSER Node 3
ACCEPTOR Node 5 received proposal from PROPOSER Node 3 with value: 80
ACCEPTOR Node 5 accepts proposal 80 from PROPOSER Node 3
PROPOSER Node 3 received promise from ACCEPTOR Node 2 with value: 80
ACCEPTOR Node 6 received proposal from PROPOSER Node 3 with value: 80
ACCEPTOR Node 6 accepts proposal 80 from PROPOSER Node 3
PROPOSER Node 3 received promise from ACCEPTOR Node 4 with value: 80
ACCEPTOR Node 7 received proposal from PROPOSER Node 3 with value: 80
PROPOSER Node 3 received promise from ACCEPTOR Node 5 with value: 80
ACCEPTOR Node 8 received proposal from PROPOSER Node 3 with value: 80
ACCEPTOR Node 8 accepts proposal 80 from PROPOSER Node 3
ACCEPTOR Node 7 accepts proposal 80 from PROPOSER Node 3
PROPOSER Node 3 received promise from ACCEPTOR Node 6 with value: 80
ACCEPTOR Node 9 received proposal from PROPOSER Node 3 with value: 80
ACCEPTOR Node 9 accepts proposal 80 from PROPOSER Node 3
Node 3 is declaring itself as the leader for proposal value 80
PROPOSER Node 3 received promise from ACCEPTOR Node 7 with value: 80
PROPOSER Node 3 received promise from ACCEPTOR Node 8 with value: 80
Node 1 agrees with leader declaration: Node 3 is the leader.
Node 2 agrees with leader declaration: Node 3 is the leader.
Node 4 agrees with leader declaration: Node 3 is the leader.
Node 5 agrees with leader declaration: Node 3 is the leader.
Node 6 agrees with leader declaration: Node 3 is the leader.
Node 7 agrees with leader declaration: Node 3 is the leader.
PROPOSER Node 3 received promise from ACCEPTOR Node 9 with value: 80
Node 8 agrees with leader declaration: Node 3 is the leader.
Node 9 agrees with leader declaration: Node 3 is the leader.
```